

PUB-NO: DE019909390C1

DOCUMENT-IDENTIFIER: DE 19909390 C1

TITLE: Laser powder deposition head, useful for tool
or component coating or repair, rapid prototyping
or rapid tooling processes, has a radially symmetrical
flow calming channel arrangement between a swirl
chamber and an annular outlet gap

PUBN-DATE: November 9, 2000

INVENTOR-INFORMATION:

NAME	COUNTRY
NOWOTNY, STEFFEN	DE
SCHAREK, SIEGFRIED	DE

ASSIGNEE-INFORMATION:

NAME	COUNTRY
FRAUNHOFER GES FORSCHUNG	DE

APPL-NO: DE19909390

APPL-DATE: March 4, 1999

PRIORITY-DATA: DE19909390A (March 4, 1999)

INT-CL (IPC): B23K026/34

EUR-CL (EPC): B23K026/14

ABSTRACT:

CHG DATE=20010403 STATUS=N>A laser powder deposition head, has a radially symmetrical arrangement of flow calming channels (2) between a powder/gas swirl chamber (1) and an annular outlet gap (14). A laser processing head has a radially symmetrical arrangement of cylindrical calming channels (2)

which are
parallel to the laser beam longitudinal axis and which are located
between a
powder/gas stream swirl chamber (1) and an annular gap (14) forming a
coaxial
hollow jet directed onto a workpiece surface. An Independent claim
is also
included for a surface treatment process employing the above laser
processing
head.